

BRIEFER ARTICLES.

Three new species of Mexican plants.¹—*Guarea Palmeri* Rose (*in littera*).—Foliis modice petiolatis 2-6-jugis, foliolis oppositis subsessilibus e basi cuneata oblongis vel obovato-lanceolatis apice obtusis supra glabris subtus ad axillas nervorum secundariorum pilosis, paniculis simplicibus racemiformibus, calyce obtuse 4-partito, ovario glabro 4-loculari loculis uniovulatis, capsula subglobosa glabra laevi, semine in arillo laete rubro immerso.—In Manzanillo (*Palmer* 1391).

Arbor mediocris 5^m alta glabra, Marte fructifera, corona lata symmetrica. Rami pallide fuscescentes lenticillis concoloribus. Folia 12-26^{cm} longa. Foliola ad 12^{cm} longa ad 4^{cm} lata in sicco firmula pallida subopaca epunctata supra nitentia, nervus secundariis utrinque circiter 8. Rhachis cum petiolo circiter 2^{cm} longo teres glabra. Paniculae hornotinæ axillares. Capsula pallide fuscescens 2^{cm} longa 22^{mm} lata 4-locularis. Cotyledones transverse superpositi crassi, radícula inclusa, plumula minima.

Species *G. brachystachyæ* C. DC. et *G. filiformis* C. DC. affinis.

Trichilia Palmeri.—Foliis parvis modice petiolatis 3-foliolatis, foliolis petiolulatis lanceolatis basi aequali acutis apice breviter obtusa cuspidatis supra glabris subtus velutino-puberulis, paniculis glabris breviter ramulosis fructiferis quam folia multum brevioribus plerumque monocarpinis, capsulis apice ramulorum sessilibus globosis parvis, valvis ovato-acutis glabris extus nigrescentibus lenticellis pallidis numerosis conspersis, seminibus ellipticis.—In Mexico (*Palmer* 1,292).

Februario fructifera. Ramuli glabri pallide fuscescentes lenticellis albis conspersi. Folia ad 9^{cm} longa. Foliola in sicco firmo-membranacea inconspicue subtiliter pellucido-punctulata subpellucida, terminalia 7.5^{cm} longa 3^{cm} lata lateralia parum minora, nervis secundariis sub-

¹While engaged in determining Dr. Palmer's collection from the state of Colima, Mexico, I came across three peculiar species that puzzled me very much. They all belong to the order Meliaceæ, none were in flower, but all had mature fruit. One I determined to be a new species of *Guarea* and the other two were tentatively referred to *Trichilia*. I finally submitted them to M. C. de Candolle, who has just reported upon them, requesting that his descriptions be published in the *BOTANICAL GAZETTE*. The following note accompanied his descriptions: "I did not answer sooner about these plants because two of them greatly puzzled me for some time, owing to the fact of their leaves and fruit showing all the outward characters of true *Trichilia* combined with the abnormal presence of perisperm in the seeds. But having received from Capt. John Donnell Smith a third plant with flowers as well as fruits, which unmistakably belongs to *Trichilia*, although its seeds contain perisperm, I now hesitate no longer to refer yours to the same genus."—J. N. ROSE.

adscendentibus suboppositis utrinque 8-10. Petioluli ad 6^{mm} longi subtiliter puberuli. Petioli ad 2^{cm} longi. Paniculæ hornotinæ axillares glabræ. Capsula paulo latior quam longa, circiter 7^{mm} lata. Semina circiter 4^{mm} longa elliptica in sicco flavicantia. Embryo perispermio albo tenui inclusus, cotyledonibus carnosus basi cordulatis, radícula exserta subrotunda, plumula minima.

Species sicut subsequens ac tertia e Guatemala alio loco describenda semine perispermium includente radículaque e cotyledonibus exserta a caeteris *Trichiliis* quorum fructus notus est discrepans.

Trichilia Colimana.—Foliis modice petiolatis 5-6-jugis, foliolis subaequalibus petiolulatis oppositis subalternisve lanceolatis basi leviter inaequali acutis apice acute acuminatis supra subtusque densius pilosulis, paniculis fructiferis simplicibus quam folia pluries brevioribus, capsulis pedicellatis 3- vel abortu 2-valvatis, valvis late ovatis transverse rugulosis hirsutis, loculis monospermis, seminibus subglobosis arillo aurantiaco circumdatis.—In Colima (*Palmer* 1, 117).

Ramuli adulti glabri, in sicco rufescentes lenticellis pallidioribus inconspicuis. Folia ad 30^{cm} longa impari-pinnata. Foliola superiora caeteris parum majora ad 7.5^{mm} longa ad 22^{mm} lata in sicco firmule membranacea inconspicue subtiliter pellucido-punctulata, nervis secundariis subadscendentibus utrinque 10-12. Rhachis cum petiolo 7^{cm} longa teres pilosula. Paniculæ fructiferæ circiter 8^{cm} longæ. Capsularum valvae circiter 1^{cm} longæ. Embryo intra sacculum persistentem extus perispermio pulverulente albo circumdatum inclusus, cotyledonibus carnosus ellipticis, radícula exserta brevi obtusa, plumula minima.—CASIMIR DE CANDOLLE, *Geneva, Switzerland*.

Frost freaks of herbaceous plants.—The very interesting article by L. F. Ward on "Frost Freaks of the Dittany"¹ called to my mind some very interesting observations which I made on this plant during the winter of 1885-6, while connected with the University of North Carolina. This plant is very abundant in the open woods at Chapel Hill where the University is located. During a short excursion one frosty morning the curious frost foils on the stems of *Cunila* attracted my attention. On these particular plants the frost laminations did not usually conform to the regular arrangement described by Mr. Ward, though sometimes the regular arrangement in whorls of two or four did occur. The sheets did however stand out vertically from longitudinal slits in the stem and were curved into multitudinous forms forming imitations of numerous objects. One case I particularly remember where two sheets issuing from parallel rifts quite near together, diverged as they extended outward from the stem, and then

¹BOTANICAL GAZETTE, 18: 183. 1893.